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What is claimed is:

1 1. A method for avoiding data loss in a PDA,
2 wherein the PDA has a RAM to store user information, a
3 battery to power the PDA, a CPU, and a nonvolatile
4 accessible memory with a predetermined region, the method
5 comprising:

6 backing up user information stored in the RAM into
7 the predetermined region when remaining power
8 of the battery is lower than a default value;
9 and . . .

10 restoring user information from the predetermined
11 region to the RAM when system power is
12 recovered.

1 2. The method as claimed in claim 1, wherein the
2 PDA further comprises a power detection unit to output an
3 enable signal when remaining power of the battery is
4 detected as lower than the default value, and output a
5 recovery signal when remaining power of the battery
6 exceeds the default value, wherein the CPU backs up user
7 information stored in the RAM to the predetermined region
8 in response to the enable signal, and restores user
9 information from the predetermined region to the RAM in
10 response to the recovery signal.

1 3. The method device as claimed in claim 1,
2 further comprising a step of interrupting access to the
3 RAM before backing up user information into the
4 predetermined region.

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1 4. The method as claimed in claim 1, wherein user
2 information comprises file system, registry, and global
3 operating system settings.

1 5. A method for avoiding data loss in a PDA,
2 wherein the PDA has a RAM to store user information, a
3 battery to power the PDA, a CPU, a nonvolatile accessible
4 memory to store preset data, and a user interface to
5 output an enable signal and a recovery signal, wherein
6 the nonvolatile accessible memory has a predetermined
7 region, the method comprising:

8 backing up user information stored in the RAM into
9 the predetermined region in response to the
10 enable signal; and
11 restoring user information from the predetermined
12 region to the RAM in response to the recovery
13 signal.

1 6. The method as claimed in claim 5, further
2 comprising a step of interrupting access to the RAM
3 before backing up user information into the predetermined
4 region.

1 7. The method as claimed in Claim 6, wherein user
2 information comprises file system, registry, and global
3 operating system settings.

1 8. A PDA capable of avoiding data loss,
2 comprising:
3 a nonvolatile accessible memory having a
4 predetermined region;

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5 a RAM to store user information;
6 a battery to power the PDA; and
7 a power detection unit to output an enable signal
8 when remaining power of the battery is detected
9 as lower than the default value, and to output
10 a recovery signal when remaining power of the
11 battery exceeds the default value.

1 9. The PDA as claimed in claim 8, wherein the CPU
2 interrupts access to the RAM before backing up user
3 information into the predetermined region.

1 10. The PDA as claimed in claim 8, wherein the
2 predetermined region backs up user information only.

1 11. The PDA as claimed in claim 8, further
2 comprising a user interface to output the enable single
3 and the recovery signal.

1 12. The PDA as claimed in claim 8, wherein the
2 nonvolatile accessible memory further stores preset data.

1 13. The PDA as claimed in claim 8, wherein the
2 nonvolatile accessible memory is flash memory.

1 14. The PDA as claimed in claim 8, wherein the RAM
2 is SDRAM.

1 15. The PDA as claimed in claim 5, wherein the
2 power detection unit comprises:

3 an amplifier having an output terminal coupled to
4 the CPU;

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5 a first resistor coupled between a positive end of
6 the battery and a non-inversion input terminal
7 of the amplifier;
8 a second resistor coupled between a negative end of
9 the battery and ground;
10 a third resistor coupled between a reference voltage
11 and an inversion input terminal of the
12 amplifier;
13 a fourth resistor coupled between the non-inversion
14 input terminal of the amplifier and the ground;
15 and
16 a fifth resistor coupled to the output terminal of
17 the amplifier.

1 16. A PDA capable of avoiding data loss,
2 comprising:

3 a nonvolatile accessible memory storing preset data
4 and programs;
5 a RAM to store user information;
6 an external flash memory having a predetermined
7 region;
8 a battery to power the PDA;
9 a power detection unit to output an enable signal
10 when remaining power of the battery is detected
11 as lower than a default value, and output a
12 recovery signal when remaining power of the
13 battery exceeds the default value; and
14 a CPU coupled to the nonvolatile accessible memory,
15 the RAM and the external flash memory, to back
16 up user data stored in the RAM to the

17 predetermined region when receiving the enable
18 signal and to restore user information to the
19 RAM when receiving the recovery signal.

1 17. The PDA as claimed in claim 16, wherein the CPU
2 interrupts access to RAM before backing up user
3 information into the predetermined region.

1 18. The PDA as claimed in claim 16, wherein the
2 predetermined region of the external flash memory backs
3 up user information only.

1 19. The PDA as claimed in claim 16, further
2 comprising a user interface to output the enable signal
3 and the recovery signal.

1 20. The PDA as claimed in claim 16, wherein the RAM
2 is synchronous DRAM (SDRAM).

1 21. A method for avoiding data loss in a PDA,
2 wherein the PDA has a RAM to store user information, a
3 battery to power the PDA, and a nonvolatile accessible
4 memory to store preset data, and the nonvolatile
5 accessible memory has a predetermined region, the method
6 comprising:

7 backing up user information stored in the RAM to the
8 predetermined region in response to voltage
9 variation of the battery.